

Mitigation and Landscape Required Tree Specifications

(This section is adapted from *Guideline Specifications for Nursery Tree Quality* [online] by the Urban Tree Foundation, D. Burger, et al.[2003]. Available from <http://www.urbantree.org/specs.asp>. As of January 13, 2010)

When the time comes to visit the nursery and select the plant material, choosing quality plants is very important.

All trees specifications discussed in this section are for mitigation trees, parking lot trees, detention trees and street tree or any other trees required by Chapters 167 or 177 of the City's UDC or as conditions of approval for an approved developmental plan. Any additional trees an applicant wishes to add to enhance the landscape of a development does not need to adhere to this section. However, this section is intended to provide the best opportunity for tree survival at planting and is recommend for additional tree plantings.

I. PROPER IDENTIFICATION

All trees shall be true to name as shown on the approved planting plans and shall be labeled individually or in groups by species and cultivar (where appropriate).

II. COMPLIANCE

All trees planted to meet mitigation and landscape requirements shall be purchased from businesses engaged in plant nursery operations and that comply with all applicable federal and state laws including regulations requiring inspection for plant disease, pests and weeds. Plants to be included in the developmental landscape shall not be transplanted from natural areas or other undeveloped lands. Where required, such as certain plants purchased and shipped from California inspection certificates required by law shall accompany each shipment of plants and a copy provided to the Urban Forester.

III. TREE CHARACTERISTICS AT THE TIME OF SALE OR DELIVERY

American National Standard Institute adopted standard; ANSI Z60.1-2004 *American Standards for Nursery Stock* or its most current version is adopted here by reference and shall supplement this information. If a conflict arises between ANSI Z60.1 and information here the specification that will result in the highest quality tree as determined by the Urban Forester shall prevail.

A. TREE HEALTH

As typical for the species/cultivar, trees shall be healthy and vigorous, as indicated by an inspection for the following:

1. Trees shall be relatively free of pests (insects, pathogens, nematodes or other injurious organisms).
2. An inspection of the crown, trunk, and roots shall find the following characteristics:
 - a. Crown Form: The form or shape of the crown is typical for a young specimen of the species/ cultivar. The crown is not significantly deformed by wind, pruning practices, pests or other factors. Crown growth should be evenly distributed around the tree and from the top leader to the lowest branch.
 - b. Leaves: The size, color and appearance of leaves are typical for the time of year and stage of growth of the species/cultivar. Leaves are not stunted, misshapen, tattered,

discolored (*chlorotic or necrotic*) or otherwise atypical.

c. Branches: Shoot growth (*length and diameter*) throughout the crown is typical for the age/ size of the species/cultivar. Trees do not have dead, diseased, broken, distorted or other serious branch injuries.

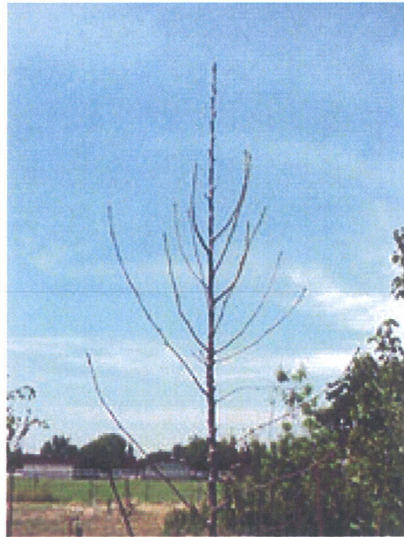
d. Trunk: The tree trunk should be fairly straight (no more than a 5% angle change), vertical and free of wounds (*except properly– made pruning cuts*), sunburned areas, conks (*fungal fruiting bodies*), wood cracks, bleeding areas, signs of boring insects, galls, cankers/lesions and girdling ties.

e. Tree height, trunk diameter and taper are typical for the age, species/cultivar and container size.

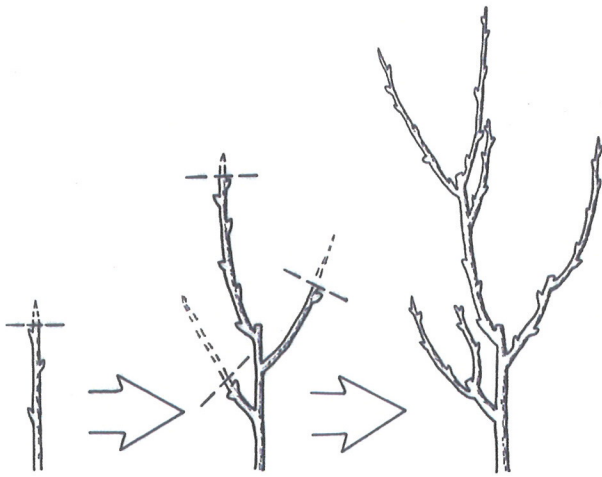
f. Roots: The root system is free of injury from biotic (*insects, pathogens, etc.*) and abiotic agents (*herbicide toxicity, salt injury, excess irrigation, etc.*). Root distribution is uniform throughout the soil mix or growth media and growth is typical for the species/cultivar. There should be no circling roots.

B. CROWN

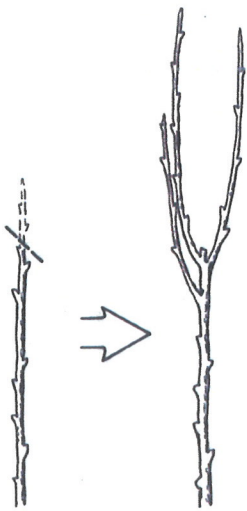
1. Central Leader: Trees shall have a single, relatively straight central leader and tapered trunk, free of codominant stems and vigorous, upright branches that compete with the central leader. If the original leader has been headed, a new leader at least $\frac{1}{2}$ (*one–half*) the diameter of the original leader shall be present.



Maintaining a single, central leader is preferable.



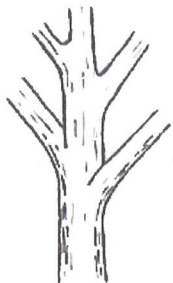
Heading and retaining a leader is acceptable.



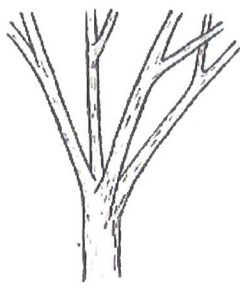
Heading without retaining a leader is unacceptable.

2. Main Branches (*scaffolds*): Branches should be distributed radially around and vertically along the trunk, forming a generally symmetrical crown typical for the species.

a. Main branches, for the most part, shall be well spaced.



preferable



unacceptable

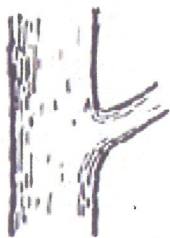


preferable



unacceptable

b) Branch diameter shall be no greater than $\frac{2}{3}$ (*two thirds*) the diameter of the trunk, measured 1" (*one inch*) above the branch.



preferable



unacceptable

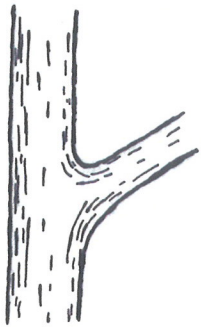


preferable



unacceptable

c) The attachment of scaffold branches shall be free of included bark.



preferable



unacceptable



preferable



unacceptable

c) temporary branches C. Trunk Taper Illustration by Edward F. Gilman, Professor, Environmental Horticulture Department, IFAS, University of Florida.
All other Illustrations adapted from Integrated Management of Landscape Trees, Shrubs and Vines, Fourth Edition, 2003, Harris, Clark, Matheny
Photos: Brian Kempf

For the characteristics and growth habits of trees, see the Appendix section at the end of this landscape manual.